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PATENT

Date August 18, 2000

Docket No. 1017-5616

## CERTIFICATION UNDER 37 CFR 1.10

I hereby certify that this New Application Transmittal and the documents referred to as enclosed therein are being deposited with the United States Postal Service on this 18<sup>th</sup> day of August, 2000 in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EL698157899US addressed to: Box Patent Application, Assistant Commissioner of Patents, Washington, D.C. 20231.

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Washington, D.C. 20231

## NEW APPLICATION TRANSMITTAL

Transmitted herewith for filing is the patent application of

Inventor(s): Weinstock, Timothy Robert; DeVallance, Kimberly Ann; Haselhorst, Randall Allan; Kennedy, Craig  
Stephen; Smith, David Gary

For : Web enabled Business to Business Operating System for Rental Car Services

Enclosed are:

## 1. Benefit of Prior U.S. Application (35 USC )

       The new application being transmitted claims the benefit of a        and enclosed is added page for new application transmittal where benefit of a prior U.S. application claimed.

## 2. The Papers Required For Filing Under 37 CFR 1.53:

<u>13</u>	Pages of Specification
<u>1</u>	Pages of Abstract
<u>7</u>	Pages of Claims
<u>2</u>	Sheets of Drawing
<u>85</u>	Exhibit A
<u>92</u>	Exhibit B
<u>246</u>	Exhibit C
<u>68</u>	Exhibit D

  X   formal        informal

In addition to the above papers there is also attached:

<u>      </u>	Pages of an Amendment
<u>  x  </u>	Return Receipt Postcard
<u>      </u>	Information Disclosure Statement with <u>      </u> copies of references.

10569 U.S. PTO  
09/641820  
08/18/00

**3. Declaration or oath**

\_\_\_\_ Enclosed \_\_\_\_ pages  
\_\_\_\_ Newly executed (original or copy)  
\_\_\_\_ Copy from a prior application (continuation/divisional with page 5 of 5 completed)  
\_\_\_\_ Deletion of Inventor(s) (signed statement attached deleting inventor(s) of prior application)  
  
\_\_\_\_ x Not enclosed

**4. Inventorship Statement**

The inventorship for all the claims in this application are:

\_\_\_\_ x the same

**OR**

\_\_\_\_ are not the same and an explanation, including the ownership of the various claims at the time the last claimed invention was made, is submitted.

**5. Language**

\_\_\_\_ X English \_\_\_\_\_ Non-English

A verified English translation of the

[check applicable item(s)]

\_\_\_\_ specification and claims

\_\_\_\_ declaration

is attached.

**6. Assignment**

\_\_\_\_ x An assignment of the invention to Enterprise Rent-A-Car Company

\_\_\_\_ is filed under separate cover sheet

\_\_\_\_ was filed in the prior application

\_\_\_\_ x will follow

**7. Certified Copy**

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(Country) (Application No.) (Filed)

from which priority is claimed

\_\_\_\_ is attached

\_\_\_\_ will follow

**8. Fee Calculation**

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CLAIMS AS FILED

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	Number Filed	Provided with Basic Fee	Number Extra	Rate	Basic Fee \$690
Total Claims	46	20	26	X \$18.00	\$ 468.00
Independent Claims	5	3	2	X \$78.00	\$ 156.00
Multiple Dependent Claim(s), if any	0	0	0	X \$260.00	\$ .00

☐ Amendment canceling extra claims enclosed

☐ Amendment deleting multiple dependencies enclosed

☐ Fee for extra claims is not being paid at this time

Filing Fee Calculation \$1,314.00

**9. Small Entity Statement**

☐ verified statement that this is a filing by a small entity under 37 CFR 1.9 and 1.27 is attached.

Filing Fee Calculation (50% of above) \$ \_\_\_\_\_

**10. Fee Payment Being Made At This Time**

☒ Enclosed

☒ basic filing fee \$ 1,314.00

Total fees enclosed \$ 1,314.00

**11. Method of Payment of Fees**


☒ check in the amount of \$ 1,314.00

[illegible]

X 37 CFR 1.16 (filing fees and presentation of extra claims)

37 CFR 1.18 (issue fee at or before Mailing of Notice of Allowance, pursuant to 37 CFR

### 13. Instructions As To Overpayment

  
R. Haferkamp  
Reg. No. 29,072  
HOWELL & HAFERKAMP, L.C.  
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St. Louis, Missouri 63105  
(314) 727-5188



Background of the Invention

Computer technology has been embraced by many businesses in order to handle their ever increasing order flow as well as to mitigate the increasing blizzard of paper required to be produced to document this business. A significant benefit which often drives the implementation of technology is its further advantage in increasing productivity to thereby allow fewer people to handle greater volumes of business. One such good example demonstrating the efficiencies and value to be gained by implementing technology is the business model developed and followed by the assignee of the present invention. A rental car company at its heart, the assignee transacts an ever increasing number of time sensitive, relatively low dollar volume, vehicle rentals which in many instances require authorizations to be made in advance, reservations of vehicles from available geographic and vehicle type selections, monitoring of the rental as it progresses including possibly extending the rental under certain circumstances, communications between the various parties involved in the transaction to ensure ultimate customer satisfaction, and financial accounting for the transaction including generating invoices and processing them for payment. While a significant portion of the vehicle rental business involves rental for leisure, business travel, etc., another significant business relationship has developed with insurance companies and the like in what has been termed as the replacement car rental service business. In this business, a vehicle insurance company may have many thousands of policyholders who are eligible to be involved in accidents, and other dislocations of use, requiring that a vehicle be rented for that customer's use while his own vehicle be made ready again for use. Thus, for this business segment, a multi-tiered business organization such as a vehicle insurance company represents a significant customer for repetitive vehicle rental services. To conduct this business in an orderly, time efficient and cost efficient manner, it is necessary that this insurance company has as its business partner a vehicle rental company which is itself multi-tiered, such as the assignee of the present invention. This is because the needs, both geographically and in volume, are significant which require the dedication of a significant amount of resources. To satisfy these needs and to respond to other business growth, in its embrace of technology the assignee hereof has succeeded in developing an in-

house computer system and related software which has integrated its business internally. This business integration has been massive and company-wide as is needed to integrate a company having a central office with literally thousands of individual branches located nationally, and even now internationally, with hundreds of thousands of vehicles available for rental. Furthermore, other business partners including other service providers such as vehicle repair shops have also been given access to this system to allow for input of information relating to progress of vehicle repair, extension of rental time, etc. as the rental progresses. This integrated business computer network and software generally includes a mainframe server at the heart of a wide area network (WAN) which facilitates the transfer of vehicle rental information and orders company-wide. This integrated business model is most efficient and needed in order to satisfy the vehicle rental service needs of a vehicle insurance company which itself may be national or even international in scope.

As a first step in extending the integration of technology into this business model, the present assignee has previously developed and implemented a computer system which has provided improved communication capabilities between the two business partners. This system generally comprised a second mainframe computer linked to the first mainframe of the integrated business network, with dedicated access lines being provided from this second mainframe to various levels of the multilevel business organization comprising the insurance company. In effect, with this additional mainframe and dedicated pipeline access, various individuals at the insurance company were permitted to directly interact with the integrated business computer network of the vehicle rental company as well as other selected service providers such as body shops where wrecked vehicles were being repaired. The implementation of this system provided a great step forward over the people intensive business activity previously required in order to handle the large number of transactions encountered in this business relationship.

Historically, the replacement car market engendered large numbers of telephone calls being placed between the insurance company, the rental company, and the body shop where vehicle repair was being performed in order to authorize the rental, select and secure the desired replacement vehicle to be provided, monitor the progress of the repair work so that scheduling of the rental vehicle could be

controlled, extending the vehicle rental in the event of delays in repair, authorizing various activities involved in the rental process including upgrades of vehicles or other charges for services, and subsequent billing of the rental service and processing the billing to the insurance company for payment.

While the implementation of this system was successful and represented a tremendous step forward in automating the business relationship between the insurance company and the vehicle rental company, it did have certain limitations. For example, a specific communication link had to be established between the rental vehicle company and the particular users at the insurance company designated to have access to this system. Thus, special attention and some modicum of expense was required to establish these "pipelines" and maintain them. Still another aspect to the system implemented was that it was not "browser" based nor did it provide graphical user interface (GUI) menus. Thus, each user had to be specifically trained in the particular "language" used by the system and learn to work with specific menus nested in a specific manner as well as codes for entering commands which were not similar to other computer software programs. This software design thus necessarily required additional training in order to insure that users could gain the full measure of advantage provided by the system and in order to minimize the opportunity for erroneous information or incorrect reservations from being entered or otherwise confusing the business transactions. Furthermore, user efficiency was not immediate and required skill beyond that ordinarily found in casual computer users, as we are all becoming in this computer age. Still another disadvantage to the system was that access was required to a designated entry point in the system in order for a person authorized to be on the system to work with it. As the nature of the insurance and replacement car business requires extreme mobility at multiple levels of both business partners, this represents a limitation to the usefulness and time efficiency with which various business functions could be performed. Therefore, while implementation of the second mainframe allowing for pipeline connections at various levels of the multi-tiered insurance company was a significant step forward in automating the business relationship between the two business partners, significant limitations to this solution were readily apparent to the users thereof.



Summary of the Invention

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The inventors herein have succeeded in designing and developing a means for substantially enhancing the business to business communication link between these two businesses which provide significant advantages over its prior embodiment. More particularly, the inventors have succeeded in replacing the dedicated pipeline access of the existing system with a web portal allowing Internet access to the mainframe with a browser based graphical user interface (GUI) presentation. This also made the system more readily accessible to smaller business partners as the expense of the "pipeline" was eliminated. This invention offers several important technical advantages over the previous system. First of all, by taking advantage of the ubiquitous nature of the Internet, the ultimate in portability and connectivity for this system is now provided in a business environment where mobility and connectivity are at a premium. In other words, a claims adjuster, body shop, or any other business employee authorized to have access to the system may gain access at any site offering Internet access. In present day technology that includes many mobile devices and appliances which are Internet enabled. As technology advances, it is conceivable that this access will extend to permit "24/7" access by any authorized person at any geographic location. This is a marked improvement providing immediate benefit and advantage over the dedicated pipeline access of the prior art system.

A second major advantage of the present invention is its graphical user interface. The inventors have taken full advantage of this browser based GUI to streamline and organize the presentation of information to a user to actually guide him as he interacts in doing his business. One such example is customized design of the menus such that the user is guided and directed to answer only those questions required to be answered in order to conduct the particular transaction being addressed, and further to present choices to the user for his selection to minimize the need for the user to rely on his own memory or to be familiar with complicated and specialized codes to enter data or request transaction activity. With the recent and continuing explosion of the Internet, more people are becoming familiar with browser programs and their operation through their own daily activities in their personal lives. This familiarity paves the way for easier training and quicker orientation of a new user to the

present invention. For large business organizations communicating at multiple levels, this significant advantage cannot be minimized as there are large numbers of people who must be continuously trained due to the growth of the organizations, as well as the inevitable attrition. Thus, the present invention provides an immediate increase in worker productivity, and makes that improved efficiency available to many more workers who are not particularly skilled otherwise in computer usage.

Still another advantage provided by the present invention is through the implementation of additional functionalities which are engendered by the browser/GUI interface. As the system is continuously used, and feedback is continuously monitored and analyzed, additional features that add value through providing management information as well as by speeding transaction activity over the system may be implemented. For example, several of these features include the ability of a user to create an on demand report for transaction activity including summaries of transactions handled by a particular user or group of users which might either be open or closed. Another example of additional functionality which improves the efficiency of a user is the ability to create a repair facility call back list which allows a user to sort existing open vehicle rental reservations by repair facility (body shop) and date such that a user is presented with the list of open reservations at a particular repair facility which can be readily handled in a single telephone call while at the same time having the system on line to implement any needed changes such as extensions of reservations, etc. Additional functionality has also been provided to speed the processing of invoicing which of course also speeds their payment and cash receipts. For example, it was found that even despite the built-in error checking and correction facilities provided to the users of the system, a repetitive pattern of mistakes involving incorrect claim numbers was discovered. To speed the processing of these, an additional functionality was provided as an "electronic audit" known as invoice return which returns an invoice to a particular adjuster upon detection of an incorrect claim number for his human intervention and correction of the claim number. In this manner, problem invoices exhibiting one of the most common problems encountered may be readily handled within the system and in an efficient manner, instead of manually as before.

The present invention also has as a significant advantage the ability to be further customized to meet the individual business partners' needs and desires as well as to provide additional functionality by offering additional features which become desirable upon accumulation of user data based on user experience. Furthermore, once implemented, they are immediately available system wide.

Still another advantage of the present invention is that the graphical user interface incorporates point and click interaction, using buttons and tabs to present or conceal data for the user's attention or inattention as the case may be, and provide a much more robust interaction capability through the creation of menu designs that allow for access to the most commonly needed features from any point in the menu architecture. This is to be contrasted with the prior system which consisted of a main frame character based interface while the present invention with its GUI interface allows a user to point and click to navigate and to make selections by pull down selection, thereby reducing errors. As users become more experienced with the system, and their confidence level grows, they are much more likely to become bored and aggravated with the rigid structure of the prior system requiring them to follow along a certain menu architecture in order to complete certain tasks. On the other hand, the present invention generally increases the interest of the user in using the system. These advantages of the present invention over the prior interface promote employee productivity by allowing a user more control over his work which is critical in achieving savings in human resources to operate the system which is one of its main goals.

While the principal advantages and features of the invention have been discussed above, a greater understanding of the invention including a fuller description of its other advantages and features may be attained by referring to the drawings and the detailed description of the preferred embodiment which follow.

#### Brief Description of the Drawings

Figure 1 is a schematic diagram of the computer systems comprising the invention; and

Figure 2 is a flow chart of the software programs which communicate over the computer systems of fig. 1 to implement the invention.

The overall system architecture for the present invention 20 is best shown in Fig. 1. As shown therein, an insurance company computer system 22, which itself may be virtually any computer configuration or even a stand alone PC accesses the Internet 24 through any convenient access point 26 such as even including an ISP (Internet service provider), as known in the art. Also connected to the Internet 24 is a web portal 28 which is preferably provided by a server appropriately programmed as explained herein below. This web portal 28 may be appropriately configured as desired to suit any particular business relationship or arrangement, although preferably the inventors herein and assignee of this invention have determined that a 24/7 or full time connection to the Internet 24 is preferable, except for scheduled downtimes for maintenance, etc. The service provider 30 which for purposes of explaining the present preferred embodiment is preferably a vehicle rental organization, has itself an Internet portal mainframe 32 connected by a bi-directional communication link 34 to a second computer network 36 which may itself preferably have a mainframe server 38. This second computer system 36 is preferably a network having a database 40 for communication with what may be thousands of branch offices each of which has its own computer interface 44 which communicates to this second mainframe server 38 to conduct the integrated business functions of a service provider organization. Instead of communicating with the branch offices directly, a reservation may be communicated to a centralized location for further processing, such as a call center, and then relayed on to an appropriate branch office. This might be desirable under certain circumstances, such as if a branch office is closed, or when a purchaser requires some specialized service such as close monitoring of the rental. This may be done electronically and automatically, or with human intervention.

It should be noted that the particular computer configuration chosen as the preferred embodiment herein may itself be subject to wide variation. Furthermore, the term "mainframe" as used herein refers solely to a computer which can provide large scale processing of large numbers of transactions in a timely enough manner to suit the particular business application. Preferably, as is presently used by the assignee hereof, an IBM AS/400 mainframe computer is used as each of computers 32, 38. However, as is well known in the art,

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directional GUI to character based interface translator program, well known to those skilled in the art, to present the displays and information obtained and transmitted between the user and the computer 32. However, the software of Exhibit D could also be run on  
5 server 28, as would be appreciated by those of skill in the art. It is believed that these functional descriptions and accompanying text as exemplified in these exhibits are adequate to enable an ordinary programmer to implement corresponding software programs for executing the preferred embodiment of the present invention using ordinary  
10 programming skills and without inventive effort.

As a further example of the flow of data and the functional advantages provided by the present invention, reference is made to Fig. 2. As shown therein, a right hand column is identified as "ECARS" which represents the integrated business software implemented  
15 as part of the mainframe operation 38 in computer network 36. The center column headed "ARMS" is resident on mainframe computer 32 and coordinates the communication of data. The left column headed "ARMS/WEB" represents the software resident on computer but which is presented on server 28 and accessible by users through the Internet.  
20 Along the left side of Fig. 2 are designated three separate sections of operational activity. These are "reservation" followed by "open" and concluded by "close". Generally, the functional descriptions are arranged in chronological order proceeding from the top of Fig. 2 to the bottom. However, some functional features are permitted  
25 throughout the entirety of one of the three periods designated at the left side of Fig. 2. One such example is the "message" function which allows messages to be sent between users at one business organization 22 and branch offices 44 and others connected to the other business organization 30. Proceeding with a description of the  
30 transaction, the first set of communications allow for the reservation of the services. These can include requests for authorization or a rescind authorization request to be sent from the service provider to the service purchaser. Correspondingly, authorizations and authorization cancels can be sent from the  
35 services purchaser to the services provider. Confirmations are communicated upon confirmation of an authorized reservation request. Authorization changes may be made and communicated from the services purchaser to the service provider. Corresponding rental transaction changes may be communicated from the services provider to the

services purchaser. As indicated, through the entirety of this process messages may be sent between users and others connected or having access to the integrated business software, as desired. The consummation of this portion of the transaction is a reservation that

5 has been placed, authorized, confirmed, and provision is made for changes as necessary. During the next phase of the transaction, a reservation is opened and services intended to be provided are started. Generally, and preferably for the rental of vehicles, a start and end date are established in the reservation process.

10 However, along the way, transactional changes may be made, such as for changing the type of vehicle provided, extensions may be requested and entered from either business partner, messages may be transmitted between the business partners, and the transaction may be terminated such as by voiding the contract by one business partner or

15 terminating the authority by the other business partner. The term "reservation" has been used herein to refer not only to the act of placing the order but also to filling the order for services including providing the rental vehicle to the ultimate user and even invoicing for those services.

20 The last phase of the process involves closing the transaction. During this phase of the transaction, the contract is indicated as being closed and invoiced, the services purchaser can approve invoices, reject invoices, and also remit invoices. Such invoice remittance may also include the actual transfer of funds through an

25 electronic funds transfer medium, or otherwise as previously arranged between the business partners.

It should be understood that this is a streamlined description of the handling of a transaction, and by no means is exhaustive. For example, much more functionality is available to the user including

30 accessing the data base to generate production reports regarding status of open or closed reservations, preparing action item lists to allow a user to organize and prioritize his work, obtaining information available in the system from having been entered by others which would otherwise require phone conversations which are

35 inefficient and occupy still another person's time. A more detailed explanation of the functionality provided is found in the exhibits.

In summary, the present invention creates almost an illusion that the services purchaser, and the great number of users at various levels of the multi-tier purchaser users, are actually part of the

services provider organization in that immediate online access is provided to significant data which enable the user to make reservations for services, monitor those services as they are being provided, communicate with those providing the services, obtain  
5 information relating to the status of services as they are being provided, and close transactions, all by interacting with the services provider business organization over that user's PC and without human interaction required by the business providers personnel. By way of contra-distinction, for many years business has  
10 been conducted on a human level by customers picking up the telephone and calling services providers and talking to their human counterparts in order to convey information, place orders, monitor orders, including obtaining information as to status, canceling orders, questioning invoices and paying invoices, along with a myriad  
15 of other related interactions. Not only did the conduct of business in this manner entail significant amounts of human resources at both ends of the transaction, but it also led to inefficiencies, mistakes and delays all of which increase the cost of doing business and contribute to an increased risk of services being rendered in an  
20 unsatisfactory manner in many instances to the end user. The present invention has taken the preexisting solution of providing electronic communication between the business partners to another level by "web enabling" this system for improved connectivity, improved usability, reduced training, enhanced mobility, and other advantages as  
25 described herein.

Various changes and modifications to the preferred embodiment as explained herein would be envisioned by those of skill in the art. Examples of these changes and modifications include the utilization of computer systems configured in any one of a myriad of ways using  
30 present technology alone. For example, mobile computers are presently available and wireless technology could be used to extend the integrated business network of the services provider, as well as match the mobility needed by the various users connected to and using the present invention. The particular software, and various aspects  
35 and features of its design, have been adapted for particular application to the vehicle rental business. Of course, computer software applications satisfying other business needs would necessarily require adaptation to their particular business models. Thus, it is envisioned by the inventors herein that the various



5 example of the practical implementation of the present invention. These changes and modifications should be considered as part of the invention and the invention should be considered as limited only by the scope of the claims appended hereto and their legal equivalents.

What is claimed is:

1. An internet enabled automatic rental vehicle transaction system, said system having an internet web portal through which an authorized purchaser of rental vehicle services may access a rental vehicle software program resident on a computer system, said rental vehicle software program being configured to automatically respond to a series of commands from said authorized purchaser and communicate a rental vehicle reservation to a specific geographically remote rental vehicle location at which vehicles for rent are situated, said rental vehicle reservation having sufficient information for authorizing, processing and billing said rental vehicle transaction so that a rental vehicle transaction may be automatically processed thereby virtually without human intervention.

2. The rental vehicle transaction system of claim 1 wherein said authorized purchaser comprises a business organization, said business organization having a plurality of authorized purchasers, said plurality of authorized purchasers being enabled to access said internet web portal from any location offering internet web access, and further comprising a second business organization, said second business organization having the computer system and rental vehicle software program resident therein, and wherein said second business organization includes a plurality of geographically diverse rental vehicle locations.

3. The rental vehicle transaction system of claim 2 wherein said rental vehicle software program is configured to permit a rental vehicle reservation to be initiated remote from said authorized purchaser and communicated to said authorized purchaser for authorization.

4. The rental vehicle transaction system of claim 3 wherein said software program is configured to permit said authorized purchasers to modify said rental vehicle reservation through said internet web portal.

5. The rental vehicle transaction system of claim 4 wherein said software program is configured to permit said authorized purchasers to modify said rental vehicle reservation including extending a time period for which said reservation authorizes use of a rental vehicle.

6. The rental vehicle transaction system of claim 4 wherein said software program is configured to permit said authorized

purchaser to generate reports relating to rental vehicle reservation activity conducted through said software program.

7. The rental vehicle transaction system of claim 6 wherein said software program further comprises a data base, said data base storing rental vehicle reservation activity for access by said authorized purchasers.

8. The rental vehicle transaction system of claim 7 wherein said software program is configured to automatically communicate billing information to said authorized purchaser for further processing.

9. The rental vehicle transaction system of claim 8 wherein said software program is configured to communicate messages between said authorized purchaser and any others having access to said software program.

10. The rental vehicle transaction system of claim 9 wherein said software program is configured for allowing access through its internet web portal to a plurality of service providers, and for limiting the functionality available to said plurality of service providers.

11. The rental vehicle transaction system of claim 10 wherein said plurality of service providers include vehicle repair facilities.

12. The rental vehicle transaction system of claim 1 further comprising a second computer system, said second computer system having a second computer software program resident thereon, said second computer software program being configured to process rental vehicle transactions at a plurality of geographically diverse branch facilities each of which has a plurality of vehicles for rental, said second computer system being linked to said first computer system.

13. The rental vehicle transaction system of claim 12 wherein each of said first and second computer systems comprises a network having a main frame computer, said main frame computers being linked to each other, and wherein said second computer system further comprises a WAN.

14. The rental vehicle transaction system of claim 13 wherein said authorized purchaser comprises a business organization, said business organization having a plurality of authorized purchasers, said plurality of authorized purchasers being enabled to access said internet web portal from any location offering internet web access,

and further comprising a second business organization, said second business organization having the second computer system resident therein, and wherein said second business organization includes the plurality of geographically diverse rental vehicle locations.

15. The rental vehicle transaction system of claim 14 wherein said first software program is configured to permit a rental vehicle reservation to be initiated remote from said authorized purchaser and communicated to said authorized purchaser for authorization.

16. The rental vehicle transaction system of claim 15 wherein said first software program is configured to permit said authorized purchasers to modify said rental vehicle reservation through said internet web portal.

17. The rental vehicle transaction system of claim 16 wherein said first software program is configured to permit said authorized purchasers to modify said rental vehicle reservation including extending a time period for which said reservation authorizes use of a rental vehicle.

18. The rental vehicle transaction system of claim 16 wherein said first software program is configured to permit said authorized purchaser to generate reports relating to rental vehicle reservation activity conducted through said first software program.

19. The rental vehicle transaction system of claim 18 wherein said first software program further comprises a data base, said data base storing rental vehicle reservation activity for access by said authorized purchasers.

20. The rental vehicle transaction system of claim 19 wherein said first software program is configured to automatically communicate billing information to said authorized purchaser for further processing.

21. The rental vehicle transaction system of claim 20 wherein said first software program is configured to communicate messages between said authorized purchaser and any others having access to said software program.

22. The rental vehicle transaction system of claim 21 wherein said first software program is configured for allowing access through its internet web portal to a plurality of service providers, and for limiting the functionality available to said plurality of service providers.

23. The rental vehicle transaction system of claim 22 wherein said plurality of service providers include vehicle repair facilities.

24. An automatic rental vehicle transaction system, said system having a graphical user interface (GUI) through which an authorized purchaser of rental vehicle services may access a rental vehicle software program resident on a computer system, said rental vehicle software program being configured to automatically respond to a series of commands from said authorized purchaser and communicate a rental vehicle reservation to a specific geographically remote rental vehicle location at which vehicles for rent are situated, said rental vehicle reservation having sufficient information for authorizing, processing and billing said rental vehicle transaction so that a rental vehicle transaction may be automatically processed thereby virtually without human intervention.

25. The rental vehicle transaction system of claim 24 wherein said authorized purchaser comprises a business organization, said business organization having a plurality of authorized purchasers, said plurality of authorized purchasers being enabled to access said rental vehicle software program from any location offering access to said computer system, and further comprising a second business organization, said second business organization having the computer system and rental vehicle software program resident therein, and wherein said second business organization includes a plurality of geographically diverse rental vehicle locations.

26. The rental vehicle transaction system of claim 25 further comprising a second computer system resident in said second business organization, said second computer system having a second computer software program resident thereon, said second computer software program being configured to process rental vehicle transactions at the plurality of geographically diverse branch facilities each of which has a plurality of vehicles for rental, said second computer system being linked to said first computer system.

27. The rental vehicle transaction system of claim 26 wherein each of said first and second computer systems comprises a network having a main frame computer, said main frame computers being linked to each other, and wherein said second computer system further comprises a WAN.

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establishing a link between said two computer systems; said internet portal software program being further configured to facilitate functional interaction between the software program resident on said rental vehicle provider's business computer system and an authorized purchaser logged onto said internet portal software program.

42. The method of claim 41 wherein each of said computer systems further comprises a main frame computer, and wherein the step of establishing a link includes the step of establishing a link between said two main frame computers.

43. A method for providing a GUI interface through which an authorized purchaser of rental vehicle services comprising a multi-level business organization may access a rental vehicle software program resident on a rental vehicle provider's business computer system, said method comprising the steps of:

providing a computer system having a software program configured to create a GUI interface; and

establishing a link between said two computer systems; said GUI interface software program being further configured to facilitate functional interaction between the software program resident on said rental vehicle provider's business computer system and an authorized purchaser logged onto said GUI interface software program.

44. The method of claim 43 wherein each of said computer systems further comprises a main frame computer, and wherein the step of establishing a link includes the step of establishing a link between said two main frame computers.

45. An internet enabled automatic rental vehicle transaction system, said system having an internet web portal through which an authorized purchaser of rental vehicle services may access a rental vehicle software program resident on a computer system, said rental vehicle software program being configured to automatically respond to a series of commands from said authorized purchaser and communicate a rental vehicle reservation to a centralized destination, said rental vehicle reservation having sufficient information for authorizing, processing and billing said rental vehicle transaction so that a rental vehicle transaction may be automatically processed thereby virtually without human intervention.

46. The rental vehicle transaction system of claim 4 wherein said software program is configured to permit said authorized purchasers to generate a report comprised of that users work load sorted.



Web enabled Business to Business Operating System  
for Rental Car Services

Abstract of the Disclosure

An Internet enabled, business-to-business computerized transaction system is disclosed in its preferred embodiment for use in providing rental car services for high volume users and comprises

5 an Internet web portal through which the high volume user may access an integrated business computer network for the rental vehicle service provider. The rental vehicle services provider computer network is configured to interconnect a geographically diverse plurality of branch offices, cataloguing their available rental

10 vehicles and schedules for same as well as handling all transactional data relating to its business. The Internet web portal provides ubiquitous connectivity and portability for a multi-level business organization who regularly places high volumes of rental purchases with its business partner. Utilizing the method and apparatus of the

15 present invention large volumes of rental transactions may be placed, monitored, altered during performance, and closed out with financial accounting and payment being made virtually without human intervention.

FIG. 1

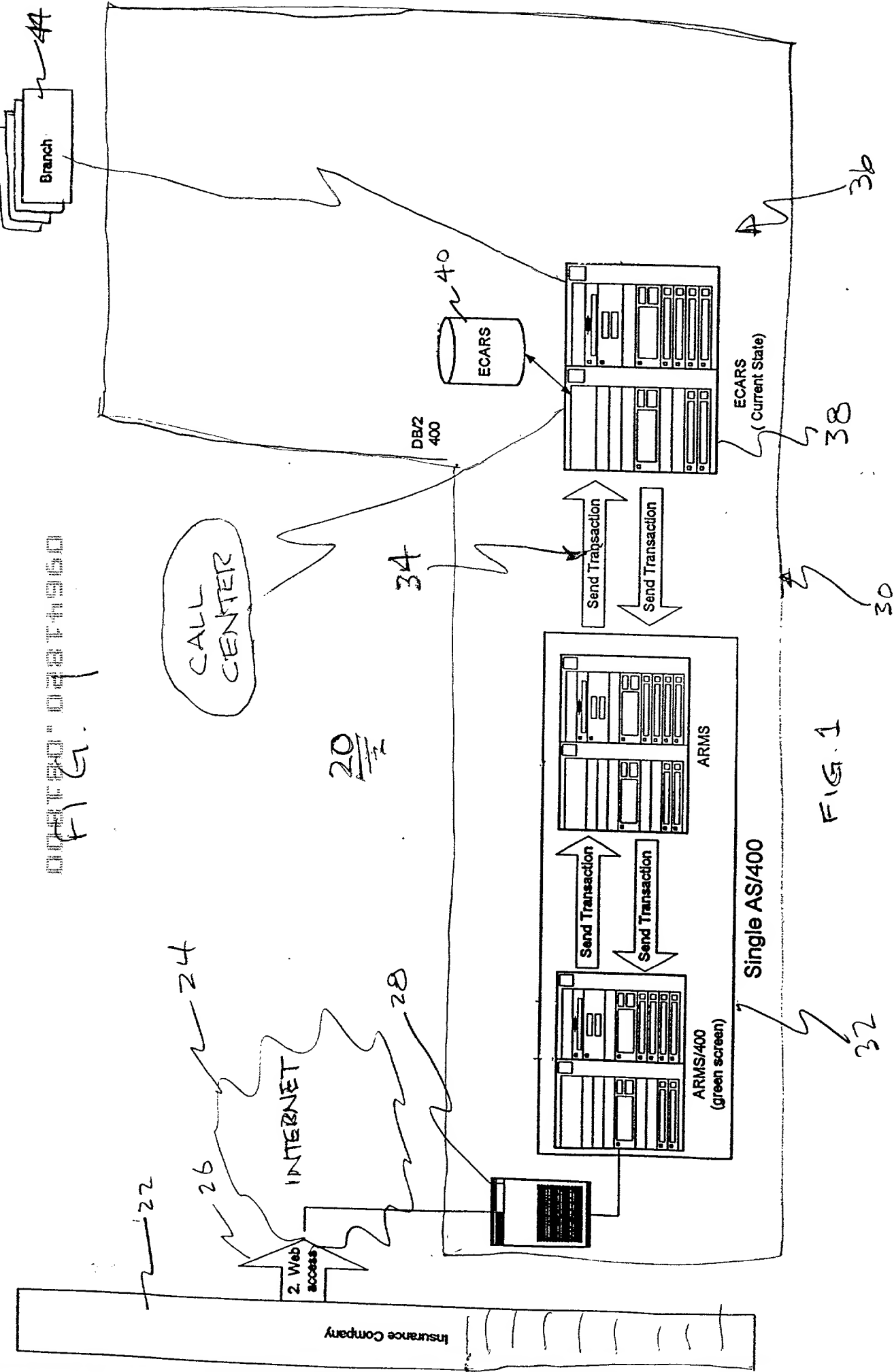


FIG. 1

# ARMS Transactions

Reservation

Open

Close

ARMS/Web

ARMS

ECARS

Request for Authorization

Request for Authorization

Recind Authorization

Recind Authorization Request

Authorization

Authorization

Cancel Authorization

Cancel Authorization

Confirmation

Confirmation

Authorization Change

Authorization Change

Rental Change

Rental Change

Message

Message

Message

Rental Start

Open Contract

Authorization Change

Authorization Change

Rental Change

Rental Change

Request for Extension

Request for Extension

Extension

Extension

Message

Message

Message

Rental Close

Void Contract

Termination

Termination

Rental Close

Close Contract

Invoice

Invoice

Invoice Approval

Invoice Approval

Invoice Reject

Invoice Reject

Invoice Remittance

Invoice Remittance

Invoice Remittance to Financials